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## Long COVID in children

Recent analysis of Zoe application (app) data (launched jointly by Zoe Limited and King's College London) by Erika Molteni and colleagues<sup>1</sup> assessed the symptom profile and duration in children with a confirmed positive SARS-CoV-2 test. The study provides important information about symptomatology but probably underestimates the true prevalence of long COVID in children. According to the Methods section, the study appears to only assess children with a defined illness duration (onset and recovery). Recovery was defined as a return to asymptomatic condition or the cessation of symptom logging. As such, this would exclude all children with on-going disease and classify children that stop recording as recovered, even if they might still be experiencing symptoms. The authors tested their assumption that cessation of recording indicated recovery by removing those patients from their calculation and found no significant difference in long COVID prevalence or average symptom duration. However, if patients that ceased recording continued to experience symptoms, these longer duration symptoms would not be identified by the study and their effect would not be accounted for in the existing assumption test.

Additionally, the study excludes any children that either had a gap in recording or reported being asymptomatic for more than 1 week before symptoms returned. Patients with long COVID experience a wide range of changing symptoms, including asymptomatic periods. Many long COVID symptoms were added to the Zoe app in November, 2020, but were not included in the existing analysis. With only 77 (4.4%) of 1734 patients showing an illness duration of longer than 28 days, even small changes in patient numbers could result in substantial changes in prevalence. Due to the methods used,

the study probably underestimates the actual prevalence of the disease in children. Understanding the true prevalence of long COVID in children is of crucial importance because many governments are using this data to define policies, from school safety measures to research funding.

We declare no competing interests.

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- 1 Molteni E, Sudre CH, Canas LS, et al. Illness duration and symptom profile in symptomatic UK school-aged children tested for SARS-CoV-2. *Lancet Child Adolesc Health* 2021; 5: 708–18.